Claims

1. A thin film layer structure for use in magnetic recording comprising:
a pre-seed layer of CrTiAl having an amorphous or nanocrystalline structure.

2. The thin film structure of claim 1 further comprising a seed layer of RuAl above the layer of CrTiAl, the RuAl having a B2 crystallographic structure.

3. The thin film layer structure of claim 1 wherein the layer of CrTiAl is approximately 5 to 20 at.% aluminum.

4. The thin film layer structure of claim 1 wherein the layer of CrTiAl is deposited on a circumferential textured nonmetallic substrate.

5. A magnetic thin film storage medium comprising:
a substrate;
a layer of CrTiAl deposited on the substrate;
a layer of RuAl over the layer of CrTiAl; and
at least one underlayer over the layer of RuAl
at least one magnetic layer over the underlayer.

6. The magnetic thin film storage medium of claim 5 wherein the CrTiAl has from 5 to 20 at.% aluminum.

7. The magnetic thin film storage medium of claim 5 wherein the CrTiAl has approximately from 5 to 20 at.% aluminum with the remainder being approximately equal atomic percentages of chromium and titanium.

8. The magnetic thin film storage medium of claim 5 wherein the RuAl has a B2 crystallographic structure.

9. The magnetic thin film storage medium of claim 5 wherein the CrTiAl is approximately from 10 to 30 nm thick.

10. A method of fabricating a magnetic thin film storage medium comprising the steps of:

depositing a layer of CrTiAl on a substrate;

depositing a layer of RuAl over the layer of CrTiAl; and

depositing a plurality of layers over the layer of RuAl, including at least one magnetic layer.

11. The method of claim 10 wherein the CrTiAl has from 5 to 20 at.% aluminum.

12. The method of claim 10 wherein the CrTiAl has approximately from 5 to 20 at.% aluminum with the remainder being approximately equal atomic percentages of chromium and titanium.

13. The method of claim 10 wherein the RuAl has a B2 crystallographic structure.

14. The method of claim 10 wherein the CrTiAl is from approximately from 10 to 30 nm thick.

15. A disk drive comprising:

a magnetic transducer including a read and a write head;

a spindle; and

a magnetic thin film disk mounted on the spindle, the magnetic thin film disk including a layer of CrTiAl followed by a layer of RuAl and at least one magnetic layer.

16. The disk drive of claim 15 wherein the CrTiAl has from 5 to 20 at.% aluminum.

17. The disk drive of claim 15 wherein the CrTiAl has approximately from 5 to 20 at.% aluminum with the remainder being approximately equal atomic percentages of chromium and titanium.

18. The disk drive of claim 15 wherein the RuAl has a B2 crystallographic structure.

19. The disk drive of claim 15 wherein the CrTiAl is approximately from 10 to 30 nm thick.